

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

**Claim 1 (Currently Amended):** A water-based pigment dispersion in which comprising:  
a pigment is dispersed with and a cross-linked water soluble or self-emulsifying thermoplastic resin containing carboxylic group, characterized in that

wherein said pigment is dispersed with a water soluble or self-emulsifying thermoplastic resin containing carboxylic group and, after said pigment is dispersed, said water soluble or self-emulsifying thermoplastic resin is cross-linked with a cross-linking agent to form said cross-linked thermoplastic resin containing carboxylic group,

in which the ratio of the said pigment to the said water soluble or self-emulsifying thermoplastic resin containing the carboxylic group (pigment/thermoplastic resin containing carboxylic group (weight ratio of effective solid matter)) is 10/10 to 10/1, and

the thermoplastic resin containing the carboxylic group is cross-linked with a cross-linking agent after the pigment is dispersed with the thermoplastic resin, and

the ratio of the said cross-linking agent to the said water soluble or self-emulsifying thermoplastic resin containing the carboxylic group (cross-linking agent/thermoplastic resin containing carboxylic group (weight ratio of effective solid matter)) is 1/100 to 50/100.

**Claim 2 (Currently Amended):** The water-based pigment dispersion of Claim 1, wherein

the water soluble or self-emulsifying thermoplastic resin containing carboxylic group is an acrylic resin or a polyurethane, and the thermoplastic resin has number average ~~molecule~~ molecular weight of 2000 to 20000 and acid value of 30 to 300.

**Claim 3 (Original):** The water-based pigment dispersion of Claim 1, wherein the cross-linking agent is an aqueous polymer of which reaction point for cross-linking is carboxylic group.

**Claims 4 - 8 (Canceled)**

**Claim 9 (Original):** A water-based ink containing the water-based pigment dispersion of Claim 1.

**Claim 10 (New):** A process for preparing the water-based pigment dispersion of Claim 1, comprising the steps of:

- (1) predispersing a pigment and a water soluble or self-emulsifying thermoplastic resin containing carboxylic group to give a mixture,
- (2) treating said mixture by a dispersing machine so as to disperse said pigment with said thermoplastic resin to give a dispersion,
- (3) cross-linking said thermoplastic resin in said dispersion with a cross-linking agent, and
- (4) adjusting the pH of the dispersion containing said pigment and the cross-linked thermoplastic resin to alkaline range.